

What is claimed is:

1. A complex antenna apparatus, comprising:

a base having a central through hole;

a circular polarization antenna disposed on the base

and having a hollow feeding portion

corresponding to the central through hole; and

a capacitance (inductance) cylinder loading monopole

antenna disposed in the central through hole of

the base via the hollow feeding portion of the

circular polarization antenna.

2. The complex antenna apparatus as claimed in

claim 1, wherein the capacitance (inductance) cylinder

loading monopole antenna further comprises a monopole

linear antenna and a conductive element covering the

monopole linear antenna.

3. The complex antenna apparatus as claimed in

claim 2, wherein the capacitance (inductance) cylinder

loading monopole antenna further comprises a dielectric

disposed between the conductive element and monopole

linear antenna.

4. The complex antenna apparatus as claimed in

claim 1, wherein the base further comprises a ground

formed thereunder.

5. The complex antenna apparatus as claimed in

claim 1, wherein the circular polarization antenna is

circular.

1 6. The complex antenna apparatus as claimed in
2 claim 1, wherein the circular polarization antenna is
3 rectangular.

1 7. The complex antenna apparatus as claimed in
2 claim 1, further comprising an RF module connected to the
3 circular polarization antenna and capacitance
4 (inductance) cylinder loading monopole antenna.

1 8. The complex antenna apparatus as claimed in
2 claim 7, wherein the base further comprises a through
3 hole, the circular polarization antenna and capacitance
4 (inductance) cylinder loading monopole antenna connected
5 to the RF module via the through hole and central through
6 hole of the base, respectively.

1 9. The complex antenna apparatus as claimed in
2 claim 7, further comprising a demodulator connected to
3 the RF module.

1 10. The complex antenna apparatus as claimed in
2 claim 1, wherein the base is ceramic.

1 11. The complex antenna apparatus as claimed in
2 claim 3, wherein the dielectric is Teflon.

1 12. A complex antenna apparatus, comprising:

2 a base having a central through hole;

3 a circular polarization antenna disposed on the base

4 and having a hollow feeding portion

5 corresponding to the central through hole; and

6 a linear antenna disposed in the central through
7 hole of the base via the hollow feeding portion
8 of the circular polarization antenna.

1 13. The complex antenna apparatus as claimed in
2 claim 12, wherein the linear antenna is a monopole linear
3 antenna.

1 14. The complex antenna apparatus as claimed in
2 claim 12, wherein the linear antenna is a capacitance
3 (inductance) cylinder loading monopole antenna.

1 15. The complex antenna apparatus as claimed in
2 claim 14, wherein the capacitance (inductance) cylinder
3 loading monopole antenna further comprises a monopole
4 linear antenna and a conductive element covering the
5 monopole linear antenna.

1 16. The complex antenna apparatus as claimed in
2 claim 15, wherein the capacitance (inductance) cylinder
3 loading monopole antenna further comprises a dielectric
4 disposed between the conductive element and monopole
5 linear antenna.

1 17. The complex antenna apparatus as claimed in
2 claim 16, wherein the base further comprises a ground
3 formed thereunder.

1 18. The complex antenna apparatus as claimed in
2 claim 12, wherein the circular polarization antenna is
3 circular.

1 19. The complex antenna apparatus as claimed in
2 claim 12, wherein the circular polarization antenna is
3 rectangular.

1 20. The complex antenna apparatus as claimed in
2 claim 12, further comprising an RF module connected to
3 the circular polarization antenna and linear antenna.

1 21. The complex antenna apparatus as claimed in
2 claim 20, wherein the base further comprises a through
3 hole, the circular polarization antenna and linear
4 antenna connected to the RF module via the through hole
5 and central through hole of the base, respectively.

1 22. The complex antenna apparatus as claimed in
2 claim 20, further comprising a demodulator connected to
3 the RF module.

1 23. The complex antenna apparatus as claimed in
2 claim 12, wherein the base is ceramic.

1 24. The complex antenna apparatus as claimed in
2 claim 16, wherein the dielectric is Teflon.